REMARKS

Claims 1-15 were presented for examination.

Claims 1-15 were rejected under 35 U.S.C. §102(b) as being anticipated by "Kriging Analysis of Geochemical Data", by Sandjivy ("Sandjivy"). In response, it is considered that the misunderstanding of Sandjivy has been overcome. Sandjivy discloses that a seismic data set can be decomposed as follows:

$Z(x) = a_u\ Y_u(x)$

in which the $Y_u(x)$ are mutually orthogonal order 2 stationary random functions (see page 5, lines 13-16).

Since Sandjivy's $Y_u(x)$ functions are mutually orthogonal:

$\text{Cov}\ (Y_u(x), Y_v(x+h)) = 0$ (see page 5, line 17).

In other words, Sandjivy discloses that a single seismic data set Z(x) can be written as:

$Z(x) = a_u\ Y_u(x) + a_v\ Y_v(x) + \ldots$, where $\text{Cov}\ (Y_u(x), Y_v(x+h)) = 0$.

$Y_u(x)$ and $Y_v(x)$ cannot be considered to be similar to Z1(x) and Z2(x) referred to in the present application, since:

$Y_u(x)$ and $Y_v(x)$ are two distinct components of the same seismic data series Z(x).

In contrast, Z1(x) and Z2(x) are two distinct seismic data series.

Thus, $Y_u(x)$ and $Y_v(x)$ have not the same technical meaning as Z1(x) and Z2(x).

When considering the content of the present application and of Sandjivy, it can be noticed that:

According to Sandjivy, Z1(x) and Z2(x) could be written as follows:

$Z1(x) = a_u\ Y_u(x) + a_v\ Y_v(x) + \ldots$, where $\text{Cov}\ (Y_u(x), Y_v(x+h)) = 0$, and
$Z2(x) = a'_u\ Y'_u(x) + a'_v\ Y'_v(x) + \ldots$, where $\text{Cov}\ (Y'_u(x), Y'_v(x+h)) = 0$.

In contrast, according to the present application, Z1(x) and Z2(x) can be written as:

Z1(x) = COMMON COMPONENT + RESIDUE R1
Z2(x) = COMMON COMPONENT + RESIDUE R2
(see §[0036]).

Sandjivy's $Y_u(x)$ functions are outputs derived from a single seismic data series, whereas Z1(x) and Z2(x) referred to in the present application are inputs, distinct seismic data series to be compared to each other.

As noted above, $Y_u(x)$, $Y_v(x)$ are such that Cov ($Y_u(x)$, $Y_v(x+h)$) = 0.

On the contrary, Z1(x) and Z2(x) are not mutually orthogonal and have no reason to be so since Z1(x) and Z2(x) are two distinct data series (see §[0036]): i.e., Cov (Z1(x), Z2(x)) $\neq$ 0.

Logically when considering their different definitions, the properties of the $Y_u(x)$ functions are different from those of Z1(x), Z2(x) referred to in the present application.

Thus, when considering that $Y_u(x)$ and $Y_v(x)$ are similar to Z1(x) and Z2(x), the Office confuses inputs, distinct data series Z1(x), Z2(x) which have a particular technical meaning, with output data $Y_u(x)$ derived from a single data series, which have a different technical meaning. The Office's finding of similarity has no technical basis. Consequently, Z1(x) and Z2(x) cannot be considered as being similar, and equated to $Y_u(x)$ functions.

Therefore, claims 1-15 should be in allowable form.

In commenting on the references and in order to facilitate a better understanding of the differences that are expressed in the claims, certain details of distinction between same and the present invention have been mentioned, even though such differences do not appear in all of the claims. It is not intended by mentioning any such unclaimed distinctions to create any implied limitations in the claims. Not all of the distinctions between the prior art and applicant's present invention have been made by applicant. For the foregoing reasons, applicant reserves the right to submit additional evidence showing the distinction between applicant's invention to be unobvious in view of the prior art.

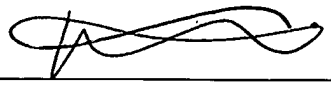
The foregoing remarks are intended to assist the Office in examining the application and in the course of explanation may employ shortened or more specific or variant descriptions of some of the claim language. Such descriptions are not intended to limit the scope of the claims; the actual claim language should be considered in each case. Furthermore, the remarks are not to be considered to be exhaustive of the facets of the invention which are rendered patentable, being only examples of certain advantageous features and differences which applicant's attorney chooses to mention at this time.

The Office is authorized to charge any fees due in association with this filing, including extension fees and any other fees or credit any overpayment for this matter to the Deposit Account of Adams and Reese, LLP, Account No. 50-2413.

Reconsideration of the application as amended and allowance thereof is requested.

Please send all future correspondence regarding the above-referenced application to the undersigned at the address appearing below.

Respectfully submitted,



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